

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Amended) A method of remote digital key generation, comprising:
 - ~~selecting an initialization code;~~
 - ~~sending the~~ applying an initialization code to a first chaotic system having dynamics not determinable solely from the initialization code, to cause the first chaotic system to assume a periodic orbit;
 - allowing the first chaotic system to generate, at least in part based on the periodic orbit, an unpredictable a first key bitstream not determinable solely from the initialization code;
 - ~~sending~~ applying the initialization code to a remote second chaotic system, identical to the first chaotic system, ~~thereby driving to drive~~ the second chaotic system into synchrony with the first chaotic system~~[[;]], and thereby~~
 - ~~allowing the second chaotic system to reproduce generate a second key bistream which is identical to the first key bitstream because the chaotic systems have been synchronized.~~
2. (Original) The method for remote digital key generation of claim 1 wherein the first chaotic system is defined by a set of differential equations.
3. (Original) The method for remote digital key generation of claim 1 wherein the first chaotic system is defined by a mapping function.
4. (Original) The method for remote digital key generation of claim 1 wherein the first chaotic system is defined by an electrical circuit.
5. (Original) The method for remote digital key generation of claim 1 wherein the first chaotic system is defined by a configuration of optical devices.
6. (canceled)

7. (canceled)
8. (canceled)
9. (canceled)
10. (canceled)
11. (Amended) A system for remote digital key generation, ~~said key generation system~~ comprising:
 - an encryptor for ~~sending~~ applying an initialization code to a first chaotic system to cause the first chaotic system to assume a periodic orbit, the first chaotic system having dynamics not determinable solely from the initialization code, allowing the first chaotic system to generate, at least in part based on the periodic orbit, ~~an unpredictable~~ a first key bitstream[[,]] not determinable solely from the initialization code, and for sending the initialization code to a decryptor;
 - and
 - the decryptor for ~~sending~~ applying the initialization code to a remote second chaotic system, identical to the first chaotic system, ~~thereby driving to drive~~ drive the second chaotic system into synchrony with the first chaotic system, ~~thereby and~~ allowing the second chaotic system to ~~generate a second key bitstream, which is identical to reproduce~~ reproduce the first key bitstream ~~because the chaotic systems have been synchronized~~.
12. (New) The system for remote digital key generation of claim 11 wherein the first chaotic system is defined by a set of differential equations.
13. (New) The system for remote digital key generation of claim 11 wherein the first chaotic system is defined by a mapping function.
14. (New) The system for remote digital key generation of claim 11 wherein the first chaotic system is defined by an electrical circuit.
15. (New) The system for remote digital key generation of claim 11 wherein the first chaotic system is defined by a configuration of optical devices.